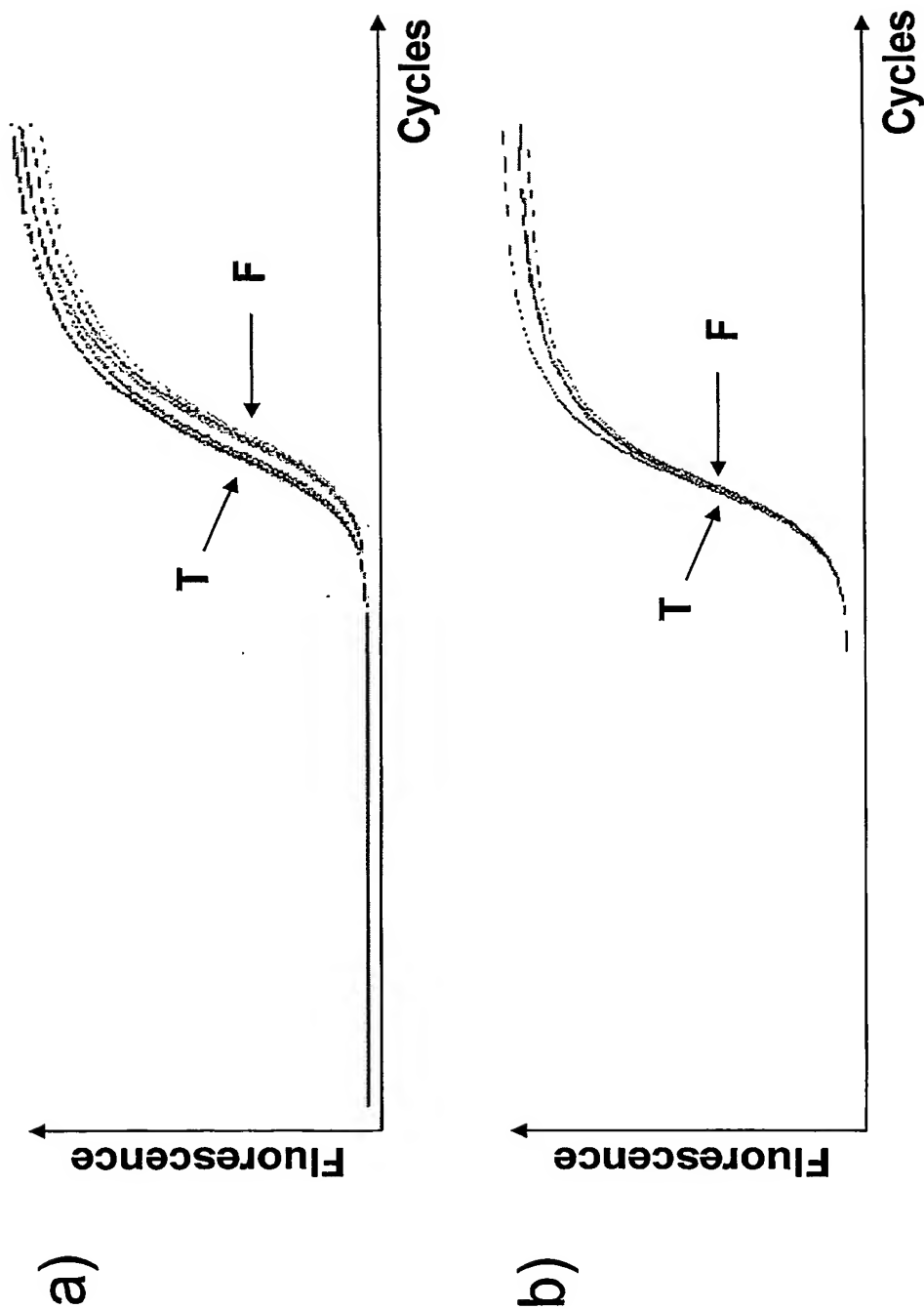


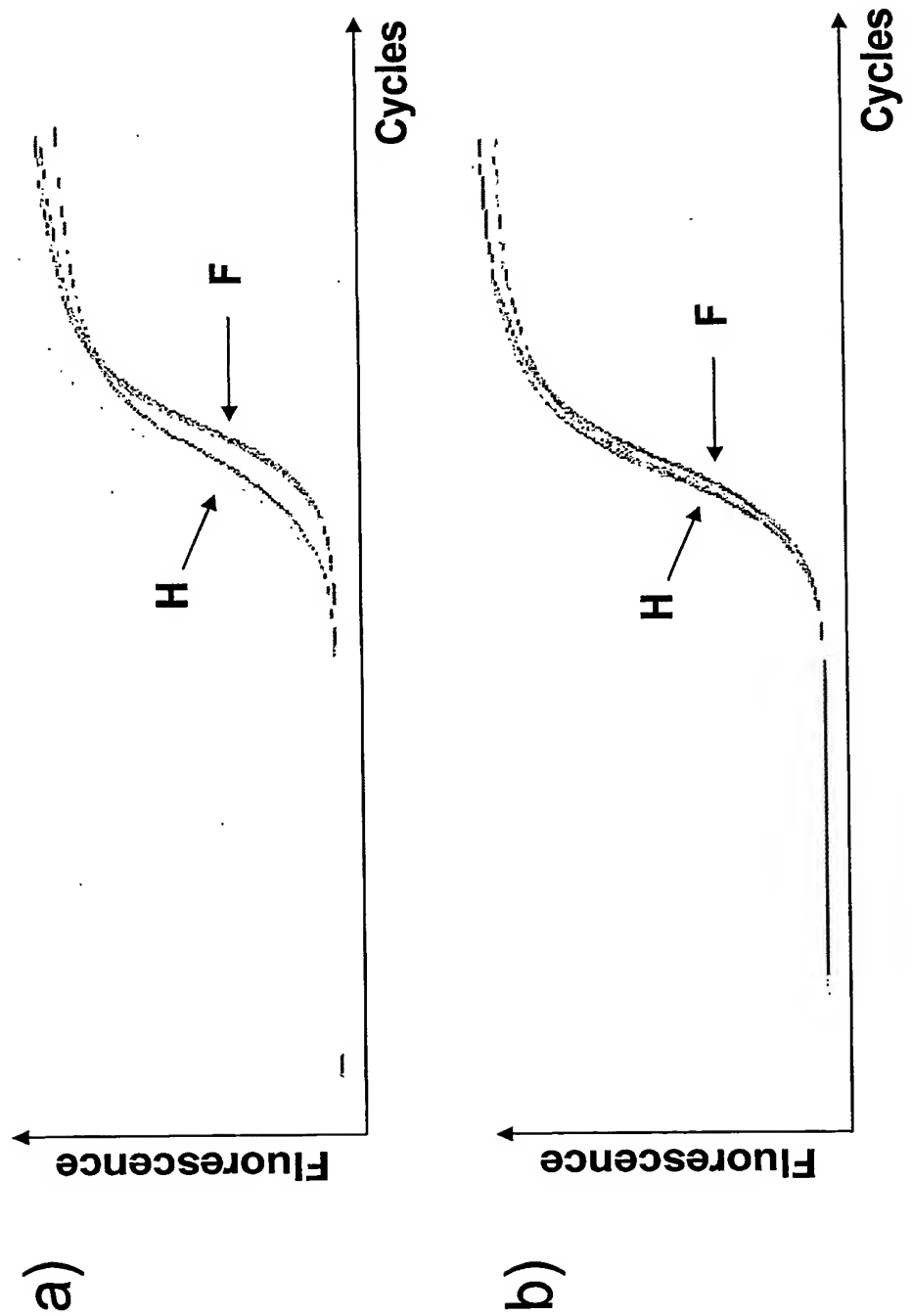
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**Fig. 1: Verification of differential expression
of human SGPL1 by quantitative RT-PCR**



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**Fig. 2: Verification of differential expression
of human SGPL1 by quantitative RT-PCR**



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Figure 3 : SEQ ID NO. 1:
amino acid sequence of
human SGPL1 protein

Length: 568 aa

1	MPSTDLLMLK	AFEPYLEILE	VYSTKAKNYV	NGHCTKYEPW	QLIAWSVVWT
51	LLIVWGYEFV	FQPESLWSRF	KKKCFKLTRK	MPIIGRKIQD	KLNKTKDDIS
101	KNMSFLKVDK	EYVKALPSQG	LSSSAVLEKL	KEYSSMDAFW	QEGRASGTVY
151	SGEEKLTELL	VKAYGDFAWS	NPLHPDIFPG	LRKIEAEIVR	IACSLFNGGP
201	DSCGCVTSGG	TESILMACKA	YRDLAFEKGI	KTPEIVAPQS	AHA AFNKAAS
251	YFGMKIVRVP	LTKMMEVDVR	AMRRAISRNT	AMLVCSTPQF	PHGVIDPVPE
301	VAKLAVKYKI	PLHVDACLGG	FLIVFMEKAG	YPLEHPFDFR	VKGVTSISAD
351	THKYGYAPKG	SSLVLYSDKK	YRNYQFFVDT	DWQGGIYASP	TIAGSRPGGI
401	SAAAWAALMH	FGENGYVEAT	KQIIKTARFL	KSELENIKGI	FVFGNPQLSV
451	IALGSRDFDI	YRLSNLMTAK	GWNLNQLQFP	PSIHFCITLL	HARKRVAIQF
501	LKDIRESVTQ	IMKNPKAKTT	GMGAIYGMAQ	TTVDRNMVAE	LSSVFLDSLY
551	STDVTVTQGSQ	MNGSPKPH			

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**Figure 4: SEQ ID NO. 2:
human SGPL1 cDNA
nucleotide sequence**

Length: 5741 bp

```
1  GCGGCTGCCG GGCCTCCAAT CTCGGCGGCG GCGGCGGCAA CAGGGGAGCC
51  TGGGTCTCGC GGCCTGCGAG TCCGTGCGCT GCTGAGGGAG ACGCAGGAGG
101 TGGAGCCGGC CGGGTGCTCG AGGGAAGGAG ACTGGAAGCT GGTTCGGCGC
151 TGAGGAGAGT CTGAAAAAGG GGAGCGCGGA GAGGAGGCTG GAAGAGGAAG
201 ATGCCTAGCA CAGACCTTCT GATGTTGAAG GCCTTTGAGC CCTACTTAGA
251 GATTTTGGAA GTATACTCCA CAAAAGCCAA GAATTATGTA AATGGACATT
301 GCACCAAGTA TGAGCCCTGG CAGCTAATTG CATGGAGTGT CGTGTGGACC
351 CTGCTGATAG TCTGGGGATA TGAGTTTGTC TTCCAGCCAG AGAGTTTATG
401 GTCAAGGTTT AAAAAGAAAT GTTTTAAGCT CACCAGGAAG ATGCCCATTA
451 TTGGTCGTAA GATTCAAGAC AAGTTGAACA AGACCAAGGA TGATATTAGC
501 AAGAACATGT CATTCTGAA AGTGGACAAA GAGTATGTGA AAGCTTTACC
551 CTCCCAGGGT CTGAGCTCAT CTGCTGTTTT GGAGAACTT AAGGAGTACA
601 GCTCTATGGA CGCCTTCTGG CAAGAGGGGA GAGCCTCTGG AACAGTGTAC
651 AGTGGGGAGG AGAAGCTCAC TGAGCTCCTT GTGAAGGCTT ATGGAGATTT
701 TGCATGGAGT AACCCCTGC ATCCAGATAT CTTCCAGGA CTACGCAAGA
751 TAGAGGCAGA AATTGTGAGG ATAGCTTGTT CCCTGTTCAA TGGGGGACCA
801 GATTCGTGTG GATGTGTGAC TTCTGGGGGA ACAGAAAGCA TACTGATGGC
851 CTGCAAAGCA TATCGGGATC TGGCCTTTGA GAAGGGGATC AAAACTCCAG
901 AAATTGTGGC TCCCCAAAGT GCCCATGCTG CATTTAACAA AGCAGCCAGT
951 TACTTTGGGA TGAAGATTGT GCGGGTCCCA TTGACGAAGA TGATGGAGGT
1001 GGATGTGCGG GCAATGAGAA GAGCTATCTC CAGGAACACT GCCATGCTCG
1051 TCTGTTCTAC CCCACAGTTT CCTCATGGTG TAATAGATCC TGTCCCTGAA
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1801 ACAGGAATAT GGTTGCAGAA TTGTCTCAG TCTTCTTGGA CAGCTTGTAC
1851 AGCACCGACA CTGTCACCA GGGCAGCCAG ATGAATGGTT CTCCAAAACC
1901 CCACTGAACT TGGACCTTT CTAGTCTCAA GGGGATTCCA GCCTTCAGAA
1951 GGTTCCTTGG ATATGGAACA GGCCGTGCAC AACTTTGACA TCTGGTCTTG
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2101 CCAGAGAATT CCATTACATA ATGATTTTGC CTTTGTTATA AATGTTACCC
2151 TAGGAATTGT TTTAACCATT TCCTTTTCTA AACTCTCTAG CTTTCAACTT
2201 TACTTAAACA TTGTGTGGTA GCTCTGACCT GTCCTGATTG TTTAGAGAAG
2251 CTGGGGTACA GTTTATGAGA TAGCTAGAGC TTCTTTGTGA TCTCAGGCAG
2301 GAGGCGTTTA CATAACAGAT GTTTCCTCAG CTGGGTGTGA GGTATACTCT
2351 AAGCAGGAGG CTTTTTCAGC CTTCTCTCTC TTTTTTTTTT TTTTTTTTTT
2401 TTGAGATGGA ATTTTGCTCT TTTGCCAGT CTGGAGTGCA GTGGCATGAT
2451 CTCAGCTCAC TGCAACCTCC ACCCACTGGG TTCAAGCGAT TCTTCTGCCT
2501 CAGCCTCCCG AGTAGCTGGG ATTACCGGCA CCCACCACCA CGCCTGGCTA
2551 ATTTTTCAAT TTTCTTTTTC AGTAGAGACG GGTTCCACCGT GTTGGCCAGG
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2651 TCCCAAAGTG CTGGGATTAC AGGCGTGAGC CACCGTGCCT GGCCCTGTCT
2701 CTCTTAAGAG TAGGTTTATT GTCTGTCTTA GAGTCACTTC TATTGCAACT
2751 CATTTTCTTT TTCCAGGGCA CAGATCGACC AAGCTGCCGT TCCCTATTCT
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2851 TGGGGTGGTC TCTTCTGTGC CTGCAGTCCC CATTTGACAC TTGGTTGCCA
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2951 GTTACCATGG ACTAGGAAGA AAACATGGTT TCCAAATAAT CTGGGAGCTT
3001 TTGGCCATGG TGCCGCCTTC CTGAATTGGC AGTGGTCAGA GCACACCTGA
3051 ACCCTATCCT GGGCTGGTGA TGAGCAGAAA TCAGACCTTT TTCTATGCTT
3101 TTTTGAATAT CAGAGTAGGA TGAACACCCA GATTCAAATA TGTACCAAAA
3151 GTTGGTGGTG GTCCTTCCCT GCACCCTTGC GTTAAGCCAT TATGTAATGA
3201 AAATGTGTTT GCTTGAAGGA ACAGCTCAAA GCACCTTCAC AAGTTGCCTT
3251 GACTTACCCT AGGTGGGTGT GAAAGAGCAC CCGTAGCAAG GAAAATTTTC
3301 TCTATTAGTG TGTTCTTCTG CCTCTTCCCC CTTGATTGAG CTTTCAGAGG
3351 TACTATGGCA GTTTTGCTCTC AGGTGCTGAA CATTTCTCAG CCCTGGCTAA
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3651 GCCCTAGGGG AAATGGATCA GTCTTTGAGG TTTCTATTG GGGAGGGGAG
3701 TACTTAAGAT GAGTCAAAAG ACACCTTCTT CTGTTCCATT CCCCATCTCA
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3801 CACTGGGAAT GCTGGCTGGG AGAGCCATGA CTACCAGACT TTTCTCAGG
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4351 TCATTGTGTA TTTTGTGTA TGTGTGCATA TAGCAGCTAC TCTGTAGCAG
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4451	GGCCTCTGCA	AAAACGTGAC	TGTCTTGTTT	CTGCATTAGA	CTTAAGTAGT
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4551	GAAAATGGTA	CTTGCTTCTT	TTAAATCTCT	GTCTTCTCTA	ACCTCCCCCT
4601	TCCCATTTCA	ATGCTCCCTT	CCTAATTTCA	GCAATAATCT	CAAAAAGCAA
4651	TTAAATAGTT	AAATGACCCT	AATTGTAATT	ACTGTGGATG	GTTGCATTCA
4701	TTTGATTACT	TGGGCACACA	CGAGATGACA	AATGGGGCAG	TGGCCATGCT
4751	TGAATGGGCT	CCTGGTGAGA	GATTGCCCCC	TGGTGGTGAA	ACAATCGTGT
4801	GTGCCCACTG	ATACCAAGAC	CAATGAAAGA	GACACAGTTA	AGCAGCAATC
4851	CATCTCATTT	CCAGGCACTT	CAATAGGTCG	CTGATTGGTC	CTTGCACCAG
4901	CAGTGGTAGT	CGTACCTATT	TCAGAGAGGT	CTGAAATTCA	GGTTCTTAGT
4951	TTGCCAGGGA	CAGGCCCTAT	CTTATATTTT	TTTCCATCTT	CATCATCCAC
5001	TTCTGCTTAC	AGTTTGCTGC	TTACAATAAC	TTAATGATGG	ATTGAGTTAT
5051	CTGGGTGGTC	TCTAGCCATC	TGGGCAGTGT	GGTCTGTCT	AACCAAAGGG
5101	CATTGGCCTC	AAACCCTGCA	TTTGGTTTAG	GGGCTAACAG	AGCTCCTCAG
5151	ATAATCTTCA	CACACATGTA	ACTGCTGGAG	ATCTTATTCT	ATTATGAATA
5201	AGAAACGAGA	AGTTTTTCCA	AAGTGTTAGT	CAGGATCTGA	AGGCTGTCAT
5251	TCAGATAACC	CAGCTTTTCC	TTTTGGCTTT	TAGCCCATTC	AGACTTTGCC
5301	AGAGTCAAGC	CAAGGATTGC	TTTTTTGCTA	CAGTTTTCTG	CCAAATGGCC
5351	TAGTTCCTGA	GTACCTGGAA	ACCAGAGAGA	AAGAGGATCC	AGGATGTACT
5401	TGGATGAGGA	GGCCTGGCTT	ATCTAGGAAG	TCGTGTCTGG	GGTGCTTATT
5451	GCTGCTCCAT	ACAGCTGTAC	GTCAGCCCCC	TGGCCTTCTC	TGTAGGTTCT
5501	TGGCAGCAAT	GAGCAGCTTT	CACTCAGTGA	CACAAGTAAT	TACTGAGTCC
5551	TAATTTGATA	GCCACCAACT	GTACCTGGGT	AGGCAAAGTC	AGATTTTTGA
5601	GAACCTTTTT	CCTGATTTGA	AGTTTTAATT	ACCTTATTTT	CTTTTATGCT
5651	TTCTCTGTC	TTGTAATCTT	TTCTCTTCTT	AATATCCTTC	CCTATAATTT
5701	CAATTATTTG	GATTAATTTT	AGAATAAACC	TATTTATTTC	T

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**Figure 5: SEQ ID NO. 3: nucleotide
sequence of human
SGPL1 coding sequence**

Length: 1707 bp

```

1  ATGCCTAGCA CAGACCTTCT GATGTTGAAG GCCTTTGAGC CCTACTTAGA
51  GATTTTGGAA GTATACTCCA CAAAAGCCAA GAATTATGTA AATGGACATT
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151 CTGCTGATAG TCTGGGGATA TGAGTTTGTC TTCCAGCCAG AGAGTTTATG
201 GTCAAGGTTT AAAAAGAAAT GTTTTAAGCT CACCAGGAAG ATGCCCATTA
251 TTGGTCGTAA GATTCAAGAC AAGTTGAACA AGACCAAGGA TGATATTAGC
301 AAGAACATGT CATTCTGAA AGTGGACAAA GAGTATGTGA AAGCTTTACC
351 CTCCCAGGGT CTGAGCTCAT CTGCTGTTTT GGAGAACTT AAGGAGTACA
401 GCTCTATGGA CGCCTTCTGG CAAGAGGGGA GAGCCTCTGG AACAGTGTAC
451 AGTGGGGAGG AGAAGCTCAC TGAGCTCCTT GTGAAGGCTT ATGGAGATTT
501 TGCATGGAGT AACCCCTGCG ATCCAGATAT CTTCCCAGGA CTACGCAAGA
551 TAGAGGCAGA AATTGTGAGG ATAGCTTGTT CCCTGTTCAA TGGGGGACCA
601 GATTTCGTGTG GATGTGTGAC TTCTGGGGGA ACAGAAAGCA TACTGATGGC
651 CTGCAAAGCA TATCGGGATC TGGCCTTTGA GAAGGGGATC AAAACTCCAG
701 AAATTGTGGC TCCCCAAAGT GCCCATGCTG CATTTAACAA AGCAGCCAGT
751 TACTTTGGGA TGAAGATTGT GCGGGTCCCA TTGACGAAGA TGATGGAGGT
801 GGATGTGCGG GCAATGAGAA GAGCTATCTC CAGGAACACT GCCATGCTCG
851 TCTGTTCTAC CCCACAGTTT CCTCATGGTG TAATAGATCC TGTCCCTGAA
901 GTGGCCAAGC TGGCTGTCAA ATACAAAATA CCCCTTCATG TCGACGCTTG
951 TCTGGGAGGC TTCCTCATCG TCTTTATGGA GAAAGCAGGA TACCCACTGG
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1451 ATTTCTGCAT CACATTACTA CACGCCCAGA AACGAGTAGC TATACAATTC
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1551 GAAGACCACA GGAATGGGTG CCATCTATGG CATGGCCCAG ACAACTGTTG
1601 ACAGGAATAT GGTTGCAGAA TTGTCCTCAG TCTTCTTGGA CAGCTTGTAC
1651 AGCACCGACA CTGTCACCCA GGGCAGCCAG ATGAATGGTT CTCCAAAACC
1701 CCACTGA

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Fig. 6: Alignment of SGPL1 RT-PCR primers with human SGPL1 cDNA, SEQ ID NO.2

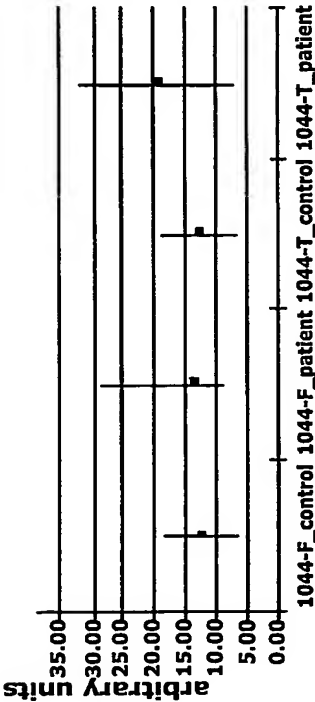
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4802 TGCCCACTGATACCAAGACCA 4822
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4849 TCCATCTCATTTCCAGGCACT 4869
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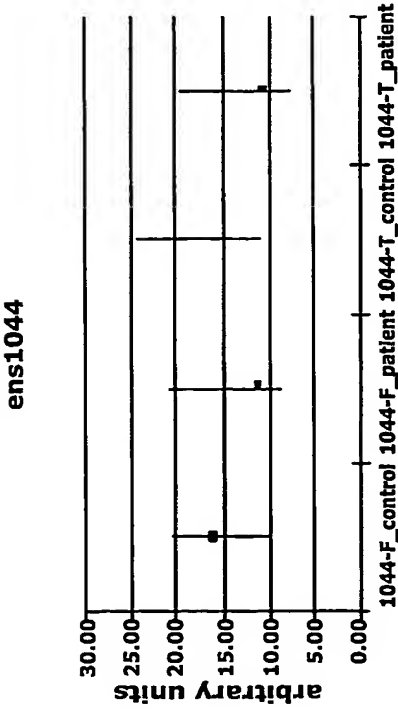
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Fig.7: Analysis of absolute mRNA expression of SGPL1

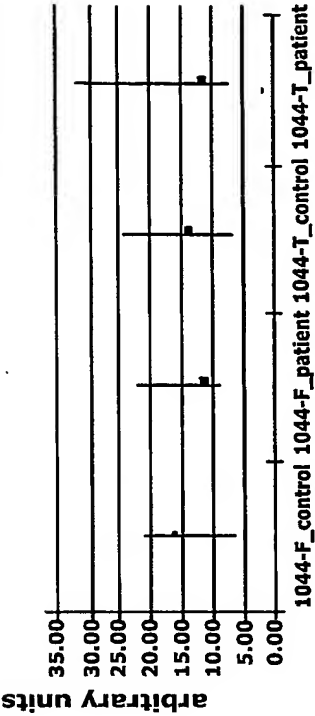
Comparison of Braak 0-3 with 4-6
ens1044



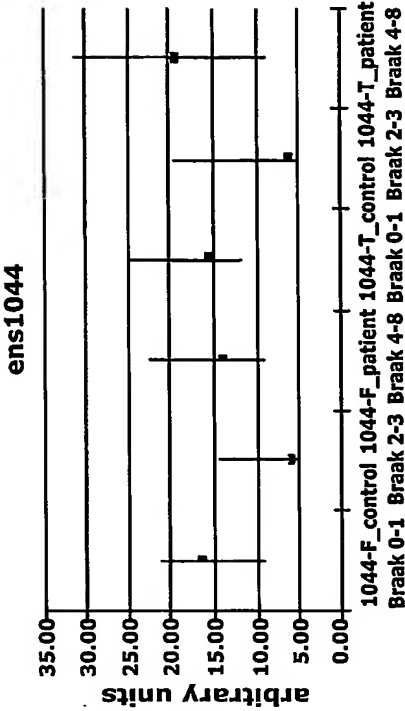
Comparison of Braak 0-1 with 2-6
ens1044



Comparison of Braak 0-2 with 3-6
ens1044

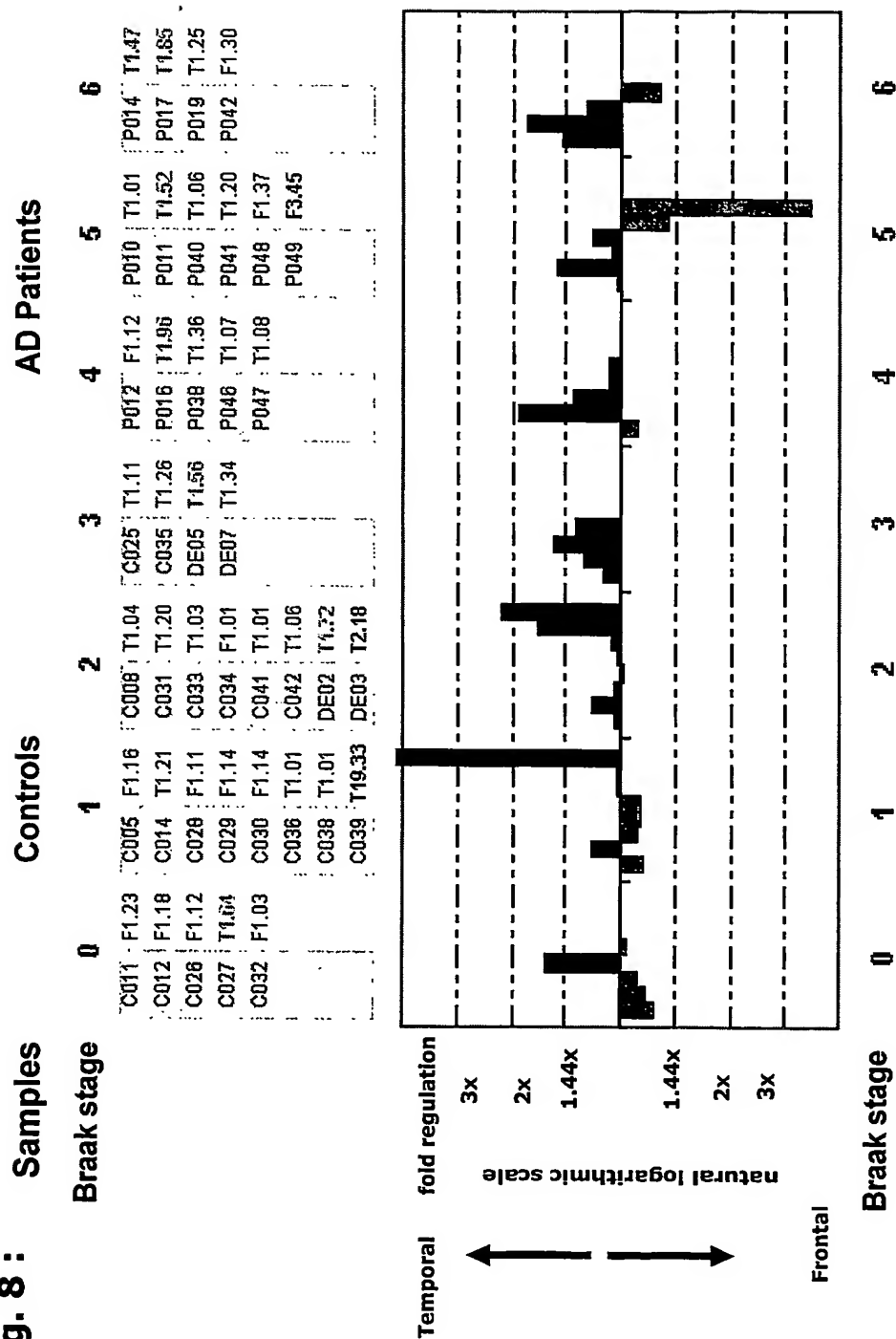


Comparison of Braak 0-1 with 2-3 and 4-8
ens1044



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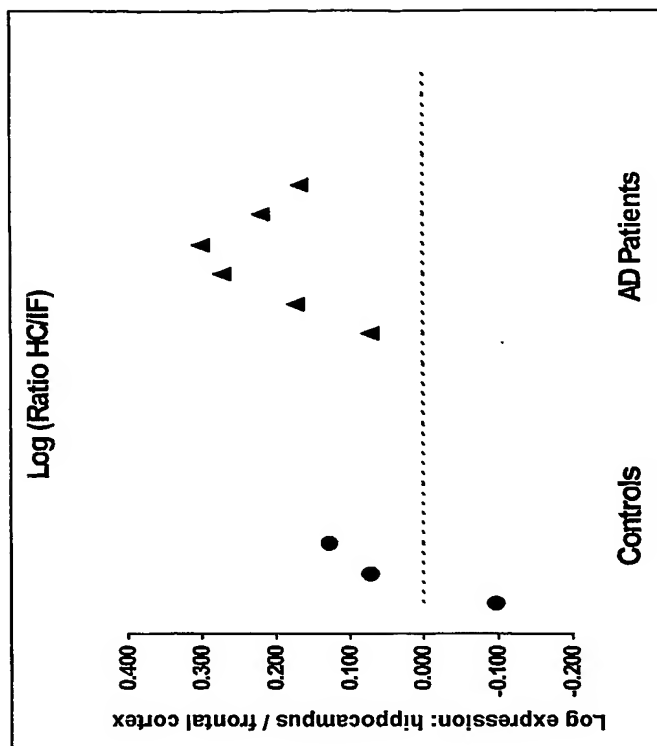
Fig. 8 :



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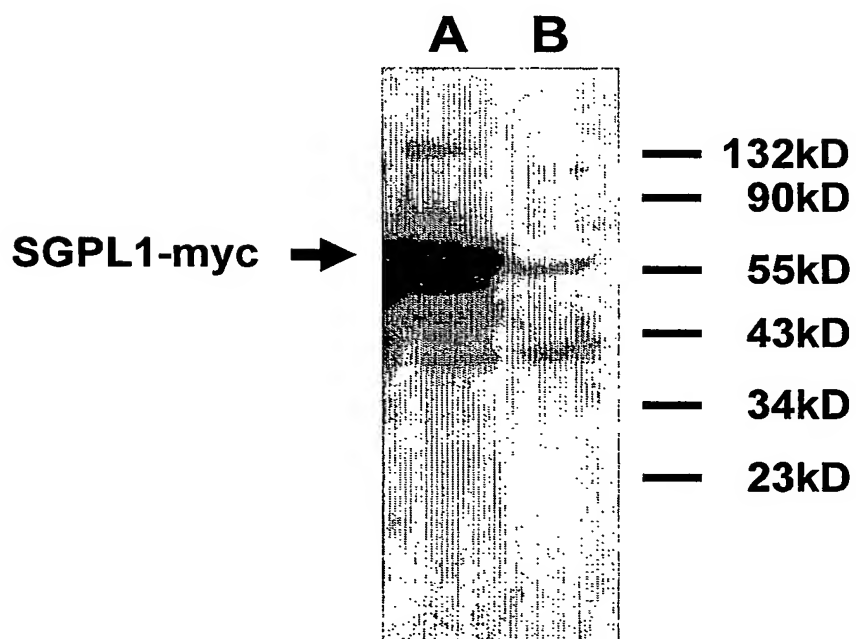
Fig. 9 :
sample Δ (fold)
(hippocampus / frontal cortex)

control C005	0.80
control C008	1.18
control C004	1.34
patient P012	1.18
patient P016	1.48
patient P010	1.87
patient P011	1.99
patient P014	1.65
patient P019	1.46



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**Fig. 10: Western Blot of H4APPsw
cell protein extracts
labeled with anti-SGPL1-myc
antibodies**



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**Fig. 11: Immunofluorescence analysis of
SGPL1 protein in neuroglioma cells**

